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(12) **United States Patent**
Wallin(10) **Patent No.:** **US 6,305,263 B1**
(45) **Date of Patent:** **Oct. 23, 2001**(54) **APPENDED POD UNDERWATER GUN MOUNT**(75) **Inventor:** **C. Roger Wallin, Portsmouth, RI (US)**(73) **Assignee:** **The United States of America as represented by the Secretary of the Navy, Washington, DC (US)**(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.(21) **Appl. No.:** **09/515,216**(22) **Filed:** **Feb. 28, 2000**(51) **Int. Cl.⁷** **F41F 3/08; F41F 3/10; F41F 3/00; F41A 23/00; B63G 8/28**(52) **U.S. Cl.** **89/5; 89/1.809; 89/1.81; 89/37.06; 114/316; 114/239**(58) **Field of Search** **89/5, 1.809, 1.81, 89/37.06; 114/316, 238, 239**(56) **References Cited****U.S. PATENT DOCUMENTS**

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An appended pod underwater gun mount for a submersible host vessel includes a strut member having a base end fixed to an outer hull of the submersible host vessel and a distal end protruding outwardly from the host vessel, the distal end being angled with respect to the base end, and an ammunition housing moveably fixed to the distal end of the strut member. A train control mechanism is positioned between the strut member and the ammunition housing for controlling the horizontal rotation of the ammunition housing with respect to the host vessel, and a tilt control mechanism is positioned between the strut member and the ammunition housing for controlling the vertical rotation of the ammunition housing with respect to the host vessel. A flexible boot is connected to the ammunition housing and surrounds each of the train control mechanism and the tilt control mechanism to protect the mechanisms from an underwater environment. The ammunition housing is movable both vertically and horizontally with respect to the distal end of the strut member and is spaced apart from the host vessel so as to avoid contacting the host vessel during directional movement of the ammunition housing.

23 Claims, 10 Drawing Sheets